SELF-PIERCING RIVET SETTING MACHINE

ABSTRACT OF THE DISCLOSURE

A self-piercing rivet setting machine 1 comprises a C-shaped frame 3, a punch 9 disposed at one end of the C-shaped frame 3, and a die 10 disposed at the other end of the C-shaped frame 3. The punch is attached to the edge of a receiver unit 14 and it is pressed against the die by a punch-driving unit 11. A plurality of workpieces are placed between the punch and the die to be connected with each other by driving a self-piercing rivet in the workpieces to cause the self-piercing rivet to pierce the workpieces. The receiver unit 14 includes a hollow shaft 17 having one end connected with a feeding tube 13 extending from a feeding device. The hollow shaft 17 is supported by a support tube 15 of the C-shaped frame 3. The receiver unit 14 further includes a receiver head 18 having an edge to which the punch is attached. The receiver head 18 is formed to receive the self-piercing rivet fed from the other end of the hollow shaft 17 and to allow the received self-piercing rivet to be held by the punch one by one. The hollow shaft 17 is supported to the support tube 15 slidably in the axial direction and rotatably in the circumferential direction thereof. The receiver head 18 is connected to the hollow shaft 17 to be selectively moved to either a first position (Fig. 1) where the punch is faced with the die or a second position (Fig. 2) where the punch is spaced apart from the die, according to the sliding and rotating of the hollow shaft.